

Remarks

The Office Action mailed April 28, 2005 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-8 and 11-25 are now pending in this application. Claims 1-8 and 11-23 stand rejected. Claims 1, 7, 8, 11-13, 17, 20, 21, and 23 have been amended herein. Claims 9 and 10 are canceled without prejudice, waiver, or disclaimer. Claims 24 and 25 are newly added. No new matter has been added. A fee calculation sheet is submitted herewith for the newly added claims.

In accordance with 37 C.F.R. 1.136(a), a two-month extension of time is submitted herewith to extend the due date of the response to the Office Action dated April 28, 2006 for the above-identified patent application from July 28, 2006 through and including September 28, 2006. In accordance with 37 C.F.R. 1.17(a)(2), authorization to charge a deposit account in the amount of \$450.00 to cover this extension of time request also is submitted herewith.

The rejection of Claim 11 under 35 U.S.C. §112, first paragraph, is respectfully traversed. Applicant has amended Claim 11. Applicant respectfully submits that the specification, including the figures, would enable one skilled in the art to make and/or use the invention as described in the present patent application. Accordingly, Applicant respectfully requests that the rejection of Claim 11 under Section 112, first paragraph, be withdrawn.

The rejection of Claim 11 under 35 U.S.C. § 102(b) as being anticipated by Orava et al. (U.S. Patent No. 6,163,028) is respectfully traversed.

Orava et al. describe an imaging system and an imaging method. In the imaging method, radiation enters a semiconductor detector (1) of one of a plurality of imaging devices (20) from one face and upon absorption creates an electric charge (column 5, lines 1-3). An imaging support (22) provides a support surface or a printed circuit board (PCB) (9) with a plurality of mounting locations for the imaging devices (column 5, lines 54-57).

Claim 11 recites a method of replacing a detector module in a modular detector assembly including at least one existing module including an alignment datum, the method comprising "removing a module to be replaced from the assembly; providing a replacement module comprising at least one alignment datum; using an alignment tool comprising a body

with at least two alignment datums extending thereon to position the replacement module in the assembly with respect to the existing module, wherein the existing module includes a scintillator array; and placing a flexible member between a collimator array and the scintillator array.”

Orava et al. do not describe nor suggest a method of replacing a detector module as recited in Claim 11. Specifically, Orava et al. do not describe or suggest placing a flexible member between a collimator array and the scintillator array. Rather, Orava et al. describe providing a semiconductor detector of one of a plurality of imaging devices and providing a printed circuit board (PCB) with a plurality of mounting locations for the imaging devices. Radiation enters from one face of the semiconductor detector and upon absorption creates an electric charge. A description of the imaging devices and the PCB does not teach the flexible member that is placed between the collimator array and the scintillator array. Accordingly, Orava et al. does not describe or suggest placing a flexible member between a collimator array and the scintillator array. Hence, Applicant respectfully requests that Claim 11 is patentable over Orava et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 102(b) rejection of Claim 11 over Orava et al. be withdrawn.

The rejection of Claims 1-5, 7, 8, 11, 13-15, and 17-23 under 35 U.S.C. § 102(b) as being anticipated by Dobbs et al. (U.S. Patent No. 5,487,098) is respectfully traversed.

Dobbs et al. describe a plurality of detectors and a plurality of anti-scatter plates that are each assembled into a plurality of identical modules (24 and 26), respectively (column 5, lines 25-30). The modules are then accurately aligned and secured to a reference surface of a spine (28), and the spine supported by a disk (10) with suitable supports (30), so that the detectors all lie in a scanning plane and subtend an equal angle with respect to a focal spot of an X-ray source (12) (column 5, lines 30-35). A flat surface (72) of each anti-scatter module (26) and a flat surface (98) of each detector module (24) rest against the reference surface (column 5, lines 41-45).

Claim 1 recites a method for fabricating a detector assembly, said method comprising “positioning a first scintillator array on a first side of a flexible member; positioning a first

collimator array on a second side of the flexible member; and positioning the flexible member between the first scintillator array and the first collimator array.”

Dobbs et al. do not describe nor suggest a method for fabricating a detector assembly as recited in Claim 1. Specifically, Dobbs et al. do not describe or suggest positioning the flexible member between the first scintillator array and the first collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach positioning the flexible member between the first scintillator array and the first collimator array. Accordingly, Dobbs et al. does not describe or suggest positioning the flexible member between the first scintillator array and the first collimator array. Hence, Applicant respectfully requests that Claim 1 is patentable over Dobbs et al.

Claims 2-5 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-5, for at least this reason, are likewise patentable over Dobbs et al.

Claim 7 recites a method for fabricating a detector array, the method comprising “providing a plurality of diode assemblies each comprising at least one alignment datum; providing a plurality of scintillator packages each comprising at least one alignment datum; providing a plurality of collimator arrays each comprising at least one alignment datum; optically coupling each diode assembly with one respective scintillator package and one respective collimator array by aligning the alignment datums of the respective diode assembly, scintillator package, and collimator array using an alignment tool comprising a body with at least two alignment datums extending thereon, wherein the alignment tool does not form a component of the detector array; and positioning a flexible member between one of the scintillator packages and one of the collimator arrays.”

Dobbs et al. do not describe nor suggest a method for fabricating a detector array as recited in Claim 7. Specifically, Dobbs et al. do not describe or suggest positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of

each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Accordingly, Dobbs et al. does not describe or suggest positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Hence, Applicant respectfully requests that Claim 7 is patentable over Dobbs et al.

Claim 8 depends from independent Claim 7. When the recitations of Claim 8 are considered in combination with the recitations of Claim 7, Applicant submits that dependent Claim 8, for at least this reason, is likewise patentable over Dobbs et al.

Claim 11 recites a method of replacing a detector module in a modular detector assembly including at least one existing module including an alignment datum, the method comprising “removing a module to be replaced from the assembly; providing a replacement module comprising at least one alignment datum; using an alignment tool comprising a body with at least two alignment datums extending thereon to position the replacement module in the assembly with respect to the existing module, wherein the existing module includes a scintillator array; and placing a flexible member between a collimator array and the scintillator array.”

Dobbs et al. do not describe nor suggest a method of replacing a detector module as recited in Claim 11. Specifically, Dobbs et al. do not describe or suggest placing a flexible member between a collimator array and the scintillator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach placing a flexible member between a collimator array and the scintillator array. Accordingly, Dobbs et al. does not describe or suggest placing a flexible member between a collimator array and the scintillator array. Hence, Applicant respectfully requests that Claim 11 is patentable over Dobbs et al.

Claim 13 recites a detector assembly comprising “a flexible member comprising a first side and a second side; a first scintillator array positioned on said first side of said flexible member; and a first collimator array positioned on said second side of said flexible

member, said collimator optically coupled to said first scintillator array, wherein said flexible member is located between said first scintillator array and said first collimator array.”

Dobbs et al. do not describe nor suggest a detector assembly as recited in Claim 13. Specifically, Dobbs et al. do not describe or suggest the flexible member is located between the first scintillator array and the first collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach the flexible member is located between the first scintillator array and the first collimator array. Accordingly, Dobbs et al. does not describe or suggest the flexible member is located between the first scintillator array and the first collimator array. Hence, Applicant respectfully requests that Claim 11 is patentable over Dobbs et al.

Claims 14 and 15 depend from independent Claim 13. When the recitations of Claims 14 and 15 are considered in combination with the recitations of Claim 13, Applicant submits that dependent Claims 14 and 15, for at least this reason, are likewise patentable over Dobbs et al.

Claim 17 recites a detector assembly comprising “a flexible member having a first side and a second side; a diode assembly comprising at least one alignment datum, said diode assembly positioned on said member first side; a scintillator package comprising at least one alignment datum, said scintillator package positioned on said member first side; and a collimator array comprising at least one alignment datum aligned with said diode assembly alignment datum and said diode assembly alignment datum, said collimator array positioned on said member second side, wherein said diode assembly, said scintillator package, and said collimator are optically coupled, wherein said flexible member is located between said scintillator package and said collimator array.”

Dobbs et al. do not describe nor suggest a detector assembly as recited in Claim 17. Specifically, Dobbs et al. do not describe or suggest the flexible member is located between the scintillator package and the collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does

not teach the flexible member is located between the scintillator package and the collimator array. Accordingly, Dobbs et al. does not describe or suggest the flexible member is located between the scintillator package and the collimator array. Hence, Applicant respectfully requests that Claim 17 is patentable over Dobbs et al.

Claims 18, 19, and 22 depend, directly or indirectly, from independent Claim 17. When the recitations of Claims 18, 19, and 22 are considered in combination with the recitations of Claim 17, Applicant submits that dependent Claims 18, 19, and 22, for at least this reason, are likewise patentable over Dobbs et al.

Claim 20 recites an imaging system comprising “a radiation source; a computer operationally coupled to said radiation source; and a radiation detector assembly operationally coupled to said computer, said detector assembly comprising: a flexible member having a first side and a second side; a diode assembly comprising at least one alignment datum, said diode assembly positioned on said member first side; a scintillator package comprising at least one alignment datum, said scintillator package positioned on said member first side; and a collimator array comprising at least one alignment datum aligned with said diode assembly alignment datum and said diode assembly alignment datum, said collimator array positioned on said member second side, wherein said diode assembly, said scintillator package, and said collimator are optically coupled, and wherein said flexible member is located between said scintillator package and said collimator array.”

Dobbs et al. do not describe nor suggest an imaging system as recited in Claim 20. Specifically, Dobbs et al. do not describe or suggest the flexible member is located between the scintillator package and the collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach the flexible member is located between the scintillator package and the collimator array. Accordingly, Dobbs et al. does not describe or suggest the flexible member is located between the scintillator package and the collimator array. Hence, Applicant respectfully requests that Claim 20 is patentable over Dobbs et al.

Claims 21 and 23 depend from independent Claim 20. When the recitations of Claims 21 and 23 are considered in combination with the recitations of Claim 20, Applicant

submits that dependent Claims 21 and 23, for at least this reason, is likewise patentable over Dobbs et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 102(b) rejection of Claims 1-5, 7-11, 13-15, and 17-23 as being anticipated by Dobbs be withdrawn.

The rejection of Claims 6, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Dobbs et al. is respectfully traversed.

Dobbs et al. is described above.

Claim 6 depends from independent Claim 1 which is recited above.

Dobbs et al. do not describe nor suggest a method for fabricating a detector assembly as recited in Claim 1. Specifically, Dobbs et al. do not describe or suggest positioning the flexible member between the first scintillator array and the first collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach positioning the flexible member between the first scintillator array and the first collimator array. Accordingly, Dobbs et al. does not describe or suggest positioning the flexible member between the first scintillator array and the first collimator array. Hence, Applicant respectfully requests that Claim 1 is patentable over Dobbs et al.

When the recitations of Claim 6 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claim 6, for at least this reason, is likewise patentable over Dobbs et al.

Claim 12 recites a method for fabricating a plurality of detector assemblies, the method comprising “providing a plurality of diode assemblies each comprising at least one alignment datum; providing a plurality of scintillator packages each comprising at least one alignment datum; providing a plurality of collimator arrays each comprising at least one alignment datum; optically coupling each diode assembly with one respective scintillator package and one respective collimator array by aligning the alignment datums of the

respective diode assembly, scintillator package, and collimator array to form a plurality of detector modules; positioning a flexible member between one of the scintillator packages and one of the collimator arrays; positioning N detector modules on a first member to form a first detector assembly; and positioning M detector modules on a second member to form a second detector assembly, wherein M is not equal to N and the first and second detector assemblies are different sized.”

Dobbs et al. do not describe nor suggest a method for fabricating a plurality of detector assemblies as recited in Claim 12. Specifically, Dobbs et al. do not describe or suggest positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Accordingly, Dobbs et al. does not describe or suggest positioning a flexible member between one of the scintillator packages and one of the collimator arrays. Hence, Applicant respectfully requests that Claim 12 is patentable over Dobbs et al.

Claim 16 depends from independent Claim 13, which is recited above.

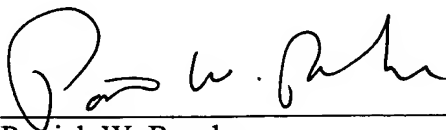
Dobbs et al. do not describe nor suggest a detector assembly as recited in Claim 13. Specifically, Dobbs et al. do not describe or suggest the flexible member is located between the first scintillator array and the first collimator array. Rather, Dobbs et al. describe resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine. A description of resting a flat surface of each anti-scatter module and a flat surface of each detector module against a reference surface of a spine does not teach the flexible member is located between the first scintillator array and the first collimator array. Accordingly, Dobbs et al. does not describe or suggest the flexible member is located between the first scintillator array and the first collimator array. Hence, Applicant respectfully requests that Claim 11 is patentable over Dobbs et al.

When the recitations of Claim 16 are considered in combination with the recitations of Claim 13, Applicant submits that dependent Claim 16, for at least this reason, is likewise patentable over Dobbs et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Patrick W. Rasche", written over a horizontal line.

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